UKRAINIAN INTEGRATION TO EUROPEAN FORENSIC SCIENCE NETWORK

Nina Klymenko
Professor, Doctor of Laws
Kyiv Taras Shevchenko National University

Olga Kupriyevych
Associate professor
Kyiv Taras Shevchenko National University

We live in the period of globalisation, closer integration and transborder crime.

New technologies such as telephone, airplanes, TV and computer and now Internet, wireless phones and wireless e-mails bring us closer and contribute to developing productive long-distance relationships in every area of life. One cannot but agree with Tomas Larsson who maintains that “globalisation is the process of world shrinkage, of distances getting shorter, things moving closer. It pertains to the increasing ease with which somebody on one side of the world can interact, to mutual benefit, with somebody on the other part of the world"[1, 8]. Globalisation is happening faster and faster.

While the definition of globalisation can vary to accommodate the context of its analysis, it generally refers to an increasing interaction across national boundaries. The process of globalisation has outpaced the growth of mechanisms for global governance, and this deficiency has produced just the sort of regulation vacuum in which transnational organized crime can thrive. Transborder crimes are prevalent today.

In a situation like this, especially due to the recent terrorist attacks on the territory of Ukraine forensic scientists focus on pooling efforts of international community that may aid in retrieval, storage and analysis of evidence of crime.

Participation in the European Association of Forensic Science events might greatly contribute to sharing opinions, views and new experiences both professionally and personally. The EAFS is an excellent link to continue to strengthen the idea of an interdisciplinary science at the service of justice.

It is but natural that Ukrainian forensic scientists are interested in cooperation with international institutions in the field of forensic science, in particular with the European Network of Forensic Science Institutions (ENFSI) which is designed to apply wide spectrum of achievements of sciences in the legal system aiding to seek

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relevant evidence to investigate and prosecute perpetrators for the crimes that have been committed.

The European Network of Forensic Science Institutions (ENFSI) has been functioning since 1995. It includes 53 expert institutions, 41 of which situated in the member states of the European Union (EU). It is the largest internationally recognised united organisation of forensic science institutions.

The most widely known ENFSI institutes dealing with expert research issues are the Polish, Hungarian and the Netherlands forensic expert institutes.

The Polish Ministry of Justice Forensic Institute named after Professor Jan Sehn undertakes research in the following spheres:

toxicological forensic examination; narcotic substances forensic research; DNA research; paints forensic examination, fibre and glass examination; firearms and types of shots; tracer fire; photoimages examination; graphological examination; questioned documents examination; dactyloscopic expert examination; forensic psychology expert examination; sound recordings examination [2].

The start of the activities of the Institutte dates back to 1929. First the department of physical and chemical methods of research started to function, then the departments of chemical and toxicological examination and biological research were opened. It was judge Skorzinsky who directed the work of the Institute till 1939.

However, the foundations of toxicology in Poland date back to the first academic lectures in this field beginning in 1783-86. The lectures were given at the Main Crown School (established in 1364 as the Studium Generale and presently called the Jagiellonian University) in Kraków by a physician and pharmacist named Jan Szaster (1746 - 1793). Another important figure was Józef Sawiczewski (1762 - 1825), who lectured on toxicology to students of pharmacy at the former Kraków University (Jagiellonian University). Further developments in the field of toxicology in Poland were slowed down due to political reasons. Poland's independence as a State was compromised by its partitioning among Russia, Prussia, and Austria in 1772, 1793, and 1795, which ultimately dissolved the State. In addition, the minimal amount of industrialization and lack of scientific laboratories didn't favour the development of toxicological research.

After Poland regained its independence in 1918, the teaching of toxicology together with forensic medicine took place as part of medical and pharmaceutical education. Outside Warsaw, the teaching of toxicology was restricted to methods of detection and identification of chemicals causing poisonings in people. Toxicological analysis was the most often practiced toxicology activity in Poland. This speciality was represented mostly by toxicological chemistry and forensic departments of

pharmaceutical university faculties that worked on the needs of forensic medicine. Laboratory analyses outside academic centres were mostly performed by pharmacists. The development of experimental methods and testing equipment for toxicological analyses were more often conducted by specialist institutions, such as the National Institute of Hygiene and the Prof. Dr. Jan Sehn Institute of Forensic Research.

Upon the occupation of Warsaw by German troops all assets of the Jan Sehn Forensic Institutte Institute were misappropriated by fascists and transferred to Berlin criminal police. It was due to the efforts of Jagiellonian University that the Polish Forensic institute resumed its work in the University premises and was provided the required equipment.

At present the Jan Sehn Polish Forensic institute comprises five forensic science subdivisions, a sectin for quality ensuring and unified methodology of research as well as the section of scientific information [3].

In so far as the Institute is an active ENFSI member, from time to time it is chosen as a venue for international conferences and workshops addressing topical issues of forensic research and criminalistics.

The Hungarian Institute of Forensic Science in Budapest has been functioning since 1961. Its researchers and scholars work in five subdivisions — classic criminalistics, dactyloscopy, research in the sphere of narcotic drugs application, forensic genetics and medicine, dactyloscopy, undertake research in biology, DNA, geology (soil) , availability of acohol in blood, fingerprints, identification of questioned documents. New directions in the activity of Hungarian experts are focused on examination of questioned documents with the application of infrared and spectrographic methodology.

The Netherlands Forensic Institute — NFI is a European innovation centre in forensic research, one of world's leading forensic laboratories. NFI strives to be the most innovative and customer-focused supplier of forensic products and services. The Dutch police and Public Prosecutor's Office make use of the NFI”s services free of charge. Moreover, the NFI offers its services to any organisation in the field of law enforcement, the maintenance of public order and security. Accordingly, its major clients are in the criminal justice supply chain that comprises the judiciary and defence counsels. However the market for forensic research is expanding: other organisations in the public order and security sectors are increasingly making use of forensic services. These include fire services, customs authorities, border agencies, intelligence services and international bodies including the United Nations. [4].

The personnel of the NFI is famous for its commitment to the highest levels of objectivity and scientific integrity.

NFI's quality management system is accredited by an independent body, the Dutch Accreditation Council. Each year the Council conducts an external audit aiming to verify that the NFI strictly adheres to the requirements for accreditation.

The research projects of the Institute cover:

•examination of chemical, biological, radiological and nuclear substances, possibly distributed by means of explosives;

•crime scene investigation;

•cybercrime (reconstruction of damaged computer files, digital data, communication networks servers);

•genomics that deals with DNA analysis of various sources, identification of the donor's geographic location;

•identification of instruments of crime commission:

•examination of contaminated trace materials;

•identification of crime instruments and ways of inflicting injuries;

•scientific evaluation of evidence;

• scientific evaluation of the obtained data;

•methodologically substantiated application of a wide range of various research subjects;

•new developments in digital technologies, such as DNA analysis, changing the role and significance during investigation of crimes.

The Netherlands Forensic Institute — NFI) enjoys the status of the Ministry of Security and Justrce of the Netherland agency, is under the jurisdiction of agency of the Law Enforcement General Director and is located in the Hague, in the premises especially built therefor in conformity with international standards with due account of the specificity of work with physical evidence [5].

Having regard for the specificity of work with physical evidence, the NFI performs three major functions:

•conduct of forensic expert examinations in criminal cases;

•elaboration of new methods and ways of conduct of forensic examination;

•training and continuous retraining of forensic experts.

The NFI spectre covers over 30 forensic spheres including forensic medicine research (among them DNA analysis. The NFI maintains the Netherlands DNA analysis database).

ENFSI is the European Network of Forensic Science Institutions. It is designed to elaborate methodology of research and coordinate forensic research in various

European states It aims to provide for the needs of the EU member states in the sphere of forensic expert examination, disseminating the newest achievements of science and technology ensuring efficient forensic research management and further improvement of forensic research methodology in Europe [6].

In order to resolve this task, 16 expert working groups have been formed (crime scene investigation, digital images, narcotic substances, etc.) that are engaged in elaboration of standardised methodologies on the basis of available professional knowledge, various technologies and science. It is the implementation of their results in practice that constitutes the essence of the ENFSI's activity.

Every year the number of crimes that need forensic experts' involvement is increasing. The volume of experts' load has doubled during five recent years.

Needless to say that the newest digital technologies and forensic science methodology application to the crime scene reconstruction ensure a possibility of consecutive step-by-step fixation of the results while experts are reconstructing crime scenes and those of traffic accidents.

A great variety of types of physical evidence can be found on a crime scene. In order to interpret them adequately experts need elaboration and submission of alternative hypotheses for gaining more reliable explanation of criminal acts that have been committed.

It is but natural that international terrorism and transborder nature of crime require ongoing improvement of forensic research methodology. Cooperation between different European forensic institutes is a must. For this purpose the European Union approved the Project that is effective from January 1, 2013 through December 2015 (680 891 Euro) which is coordinated by the European Network of Forensic Institutions, with the most active Project partners being six German Institutes, four from the United Kingdom, one from Spain, one from Poland and one from Czech Republic.

International crime is on the increase. The growing number of grave international crimes requires closer cooperation of the states. It is especially critical for each country to have access to forensic research methodology applicable in other countries. Cooperation should be covering primarily those branches in which experts lack mutual understanding, where comparative research shall be applicable. The partner institutes will be dealing with particular spheres of forensic science, among them — methodology of graphology, analytical methods of comparing human voices and interpreting the evidence received as a result of crime investigation.

Forensic science extends to a great number of scientific disciplines and numerous topical issues of forensic science cannot be resolved on the basis of the

resources of just one laboratory in one country. Therefore international cooperation yields much better results [5].

The experts undertaking research within the framework of the European Union Project will focus on identifying best methodologies of particular forensic research and then will disseminate best results in the European community of forensic scholars.

A pilot research into old documents with the application of fibre database, available for forensic experts and investigators.

An Innovation Methodology Manual is planned to be published which will cover actually all branches of forensic science. It will comprise recommendations aiming to identify the speaker's voice together with the results of the comparative research and phoneticians' methods of speaker's automatic identification.

International conferences of forensic science experts that are held in various countries serve the same purpose: improvement of forensic science research methodology. Lausanne, Krakow, Istanbul, Helsinki, Glasgo. The venue of the next (seventh) conference is Prague, September 2015. Prague Forensic Science Institute was founded in 1958, has been ENFSI member since 1998 and was a venue for numerous international meetings, conferences and workshops, among them annual conferences in 2001 and 2010.

List of references:

1.Tomas Larsson. The Race to the Top. The Real Story of Globalization. Washington, DC: Cato Institute. 2001.

2.http://www.nizkor.org/hweb/orgs/polish/institute-for-forensic-research/

3.(http://www.pzh.gov.pl)

4.Aleksander Glazek, Woiciech Piekoshewski. Forensic Sciences in Cracow.www.forensicscience.pl/50_glazek.pdf

5.www.bszki.hu/english/institute for forensic research

6.Marek Banasik and Todd Stedeford, Information Resources in Toxicology, 4th Edition, Copyright Elsevier, 2009. p. 14

7.http://www.denhaag.nl/en/business/international-The-Hague-1/to/European-Network-of-Forensic-Science-Institutes-ENFSI.htm

Розглядається європейська мережа експертних установ, зосереджується увага на найбільш відомих судово-експертних інститутах Європи, аналізуються основні напрями їх діяльності та види досліджень, а також цілі європейської судово-експертної асоціації.

Ключові слова: європейська мережа, експертні інститути і підрозділи, функції, напрями діяльності, розвиток інформаційних технологій і засобів, розробка стандартизованих методик дослідження.

Рассматривается европейская сеть судебно-экспертных учреждений, указываются наиболее известные институты экспертных исследований, анализируются основные направления их деятельности и виды исследований, а также цели европейской экспертной ассоциации.

Ключевые слова: европейская сеть, экспертные институты и подразделения, функции, направления деятельности, развитие информационных технологий и средств, разработка стандартизированных методик исследования.

The authors address European network of forensic research institutes, focusing on the most widely known forensic science institutions in Europe, analyse major orientations of their activity and branches of research as well as objectives of European forensic science association, substantiating the need for integration.

Key words: European network, forensic research institutes and subdivisions, functions, orientations of activity, development of information technologies and tools, elaboration of standardised methodologies of forensic research.

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